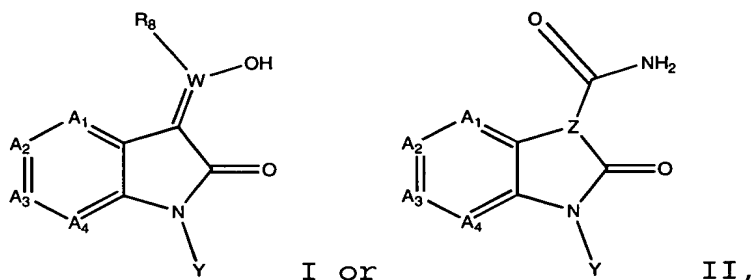


CLAIMS

We claim:

1. A compound of the formula:



or a pharmaceutically acceptable derivative or prodrug thereof; wherein

Y is selected from $-(CH_2)-Q_1$; $-(CO)-Q_1$; $-(CO)NH-Q_1$; $-(CO)-O-Q_1$; $-(SO_2)-Q_1$ or $-(SO_2)NH-Q_1$;

Q_1 is a C_1 - C_6 straight chain or branched alkyl or alkenyl group; a 5-7 membered aromatic or non-aromatic carbocyclic or heterocyclic ring; or a 9-14 membered bicyclic or tricyclic aromatic or non-aromatic carbocyclic or heterocyclic ring system, wherein said alkyl, alkenyl, ring or ring system is optionally substituted with one to four substituents, each of which is independently selected from NH_2 , $NH-R$, $N(R)_2$, NO_2 , OH , OR , CF_3 , halo, CN , CO_2H , $C(O)-NH_2$, $C(O)-NH-R$, $C(O)-N(R)_2$, $C(O)-R$, SR , $S(O)-R$, $S(O)_2-R$, $S(O)_2-NH-R$ or $-R$;

W is N or C;

wherein when W is N, R_8 is a lone pair of electrons; and

wherein when W is C, R_8 is R_7 .

A_1 is N or CR^1 ;

A_2 is N or CR^2 ;

A_3 is N or CR^3 ;

A_4 is N or CR^4 ;

provided that at least one of A_1 , A_2 , A_3 and A_4 must not be N;

R^1 is $-NHR^5$, $-OR^5$, $-SR^5$, or $-R^5$;

R^2 , R^3 , and R^4 are independently selected from -
5 (CO)NH₂, $-(CO)NHR$, $-(CO)N(R)_2$, $-NHR^5$, $-NHCH_2R^5$, $-OR^5$, $-SR^5$, $-R^5$, $-NH(CO)-R^6$, $-NH(CO)-NHR^6$, $-NH(CO)-NH(CO)R^6$, $-NH(CO)-OR^6$, $-NH(SO_2)-R^6$, $-NH(SO_2)-NHR^6$, $-C(O)OH$, $-C(O)OR$, $-(CO)-Q_1$, $-(CO)NH-Q_1$, $-(CO)NR-Q_1$, $-(CO)-O-Q_1$, $-(SO_2)-Q_1$ or $-(SO_2)NH-Q_1$;

R^5 and R^6 are each independently selected from H;
10 $N(R)_2$, NHOH, NO₂, C(O)OR or halo; a C₁-C₆ straight chain or branched alkyl, alkenyl or alkynyl group; a 5-7 membered aromatic or non-aromatic carbocyclic or heterocyclic ring; or a 9-14 membered bicyclic or tricyclic aromatic or non-aromatic carbocyclic or heterocyclic ring; wherein said
15 alkyl, alkenyl, ring or ring system is optionally substituted with one to four substituents, each of which is independently selected from NH₂, NHR, NHC(O)OR, $N(R)_2$, NO₂, OH, OR, CF₃, halo, CN, Si(R)₃, CO₂H, COOR, CONH₂, CONHR, CON(R)₂, COR, SR, S(O)R, S(O)₂R, S(O)₂NHR or R;

20 R^7 is H; a C₁-C₆ straight chain or branched alkyl or alkenyl group; a 5-7 membered aromatic or non-aromatic carbocyclic or heterocyclic ring; or a 9-14 membered bicyclic or tricyclic aromatic or non-aromatic carbocyclic or heterocyclic ring; wherein said alkyl, alkenyl, ring or
25 ring system is optionally substituted with one to four substituents, each of which is independently selected from NH₂, NHR, $N(R)_2$, NO₂, OH, OR, CF₃, halo, CN, CO₂H, CONH₂, CONHR, CON(R)₂, COR, SR, S(O)R, S(O)₂R, S(O)₂NHR or R;

R is a C₁-C₆ straight chain or branched alkyl or
30 alkenyl group, a 5-7 membered aromatic or non-aromatic carbocyclic or heterocyclic ring, or a 9-10 membered bicyclic aromatic or non-aromatic carbocyclic or

10035823 102301

heterocyclic ring system; and

Z is CH or N.

2. The compound according to claim 1, wherein
5 Y is $-(CH_2)-Q_1$ and Q_1 is a substituted phenyl.

3. The compound according to claim 1, wherein
the compound is selected from any one of the compounds
depicted in Table 1.

10

4. A pharmaceutical composition comprising an
amount of a compound according to any one of claims 1 to 3
effective to inhibit JNK, and a pharmaceutically
acceptable carrier.

15

5. Use of the composition according to claim 4
for the manufacture of a medicament for treating or
preventing inflammatory diseases, autoimmune diseases,
destructive bone disorders, proliferative disorders,
20 infectious diseases, neurodegenerative diseases,
allergies, reperfusion/ischemia in stroke, heart attacks,
angiogenic disorders, organ hypoxia, vascular hyperplasia,
cardiac hypertrophy, thrombin-induced platelet aggregation
or conditions associated with proinflammatory cytokines in
25 a patient in need thereof.

6. The use according to claim 5, wherein said
treating or preventing is for an inflammatory disease
selected from acute pancreatitis, chronic pancreatitis,
30 asthma, allergies, or adult respiratory distress syndrome.

7. The use according to claim 5, wherein said

10035823 102301
T0000T 020500T

treating or preventing is for an autoimmune disease selected from glomerulonephritis, rheumatoid arthritis, systemic lupus erythematosus, scleroderma, chronic thyroiditis, Graves' disease, autoimmune gastritis, diabetes, autoimmune hemolytic anemia, autoimmune neutropenia, thrombocytopenia, atopic dermatitis, chronic active hepatitis, myasthenia gravis, multiple sclerosis, inflammatory bowel disease, ulcerative colitis, Crohn's disease, psoriasis, or graft vs. host disease.

10

8. The use according to claim 5, wherein said wherein said treating or preventing is for a destructive bone disorders selected from osteoarthritis, osteoporosis or multiple myeloma-related bone disorder.

15

9. The use according to claim 5, wherein said wherein said treating or preventing is for a proliferative disease selected from acute myelogenous leukemia, chronic myelogenous leukemia, metastatic melanoma, Kaposi's sarcoma, or multiple myeloma.

20

10. The use according to claim 5, wherein said wherein said treating or preventing is for a neurodegenerative disease selected from Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, Huntington's disease, cerebral ischemia or neurodegenerative disease caused by traumatic injury, glutamate neurotoxicity or hypoxia.

25

30

11. The use according to claim 5, wherein said wherein said treating or preventing is for ischemia/reperfusion in stroke or myocardial ischemia,

renal ischemia, heart attacks, organ hypoxia or thrombin-induced platelet aggregation.

12. The use according to claim 5, wherein said
5 wherein said treating or preventing is for a condition associated with T-cell activation or pathologic immune responses.

13. The use according to claim 5, wherein said
10 wherein said treating or preventing is for an angiogenic disorder selected from solid tumors, ocular neovascularization, or infantile haemangiomas.

10035823-102301